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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP
1300 I STREET, NW
WASHINGTON, DC 20005

EXAMINER	
MACKEY, JAMES P	
ART UNIT	**PAPER NUMBER**
1722	

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No.	Applicant(s)	
	09/961,436	GUERMANDI, ROMANO	
	Examiner	Art Unit	
	James Mackey	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 October 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-18 and 21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-18 and 21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 08/951,672.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *10/24/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 16-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of McKissick et al. (U.S. Patent 3,735,791; Fig. 1), Mills et al. (U.S. Patent 3,693,690; Fig. 1) and Brown (U.S. Patent 3,517,720; Figs. 3-4; col. 2, lines 24-31, col. 5, lines 33-50, col. 6, lines 10-17; Tables I and II), in view of any one of Takigawa et al. (U.S. Patent 4,345,632; Fig. 2; col. 5, lines 25-48), Kinoshita et al. (U.S. Patent 5,417,269 ; Figs. 1-3), Pfeiffer et al. (U.S. Patent 4,687,037; Fig. 1) and Suzuki et al. (U.S. Patent 5,375,639; Figs. 1-2; col. 3, lines 4-61).

Each of McKissick et al., Mills et al. and Brown teaches a tire mold substantially as claimed; specifically, McKissick et al. teach a tire mold comprising a pair of axially opposite cheeks, a matrix interposed between the pair of cheeks, the matrix including a plurality of ribs which project in a raised configuration from a radial interior surface of the mold for forming a raised pattern in the tire tread band, wherein a sectional profile of the radial interior surface comprises two concave side portions 21 each having a center and a radius of curvature R2, and wherein ridges of the ribs in an area 20 between the two concave side portions define a radially inwardly convex surface tangent having a radius of curvature R1; Mills et al. teach a tire mold comprising a pair of axially opposite cheeks, a matrix interposed between the pair of cheeks, the matrix including a plurality of ribs which project in a raised configuration from a radial interior surface of the mold for forming a raised pattern in the tire tread band, wherein a sectional profile of the radial interior surface comprises two concave side portions (at 32, 34) each having a center

and a radius of curvature, and wherein ridges of the ribs in an area (at 30) between the two concave side portions define a radially inwardly convex surface tangent having a radius of curvature; Brown inherently teaches a tire mold inherently comprising a pair of axially opposite cheeks and a matrix interposed between the pair of cheeks, the matrix including a plurality of ribs which project in a raised configuration from a radial interior surface of the mold for forming a raised pattern in the tire tread band (as clearly shown in the tire product of Figs. 2 and 5), wherein a sectional profile of the radial interior surface comprises two concave side portions 30 each having a center and a radius of curvature r2 within the claimed range (claim 17), and wherein ridges of the ribs in an area between the two concave side portions define a radially inwardly convex surface tangent having a radius of curvature r1.

McKissick et al., Mills et al. and Brown do not disclose a central rib on an equatorial plane of the mold, the rib including a circumferential depression. Each of Takigawa et al., Kinoshita et al., Pfeiffer et al. and Suzuki et al. inherently disclose a tire mold having a tread matrix portion including a central rib centered on an equatorial plane of the mold for forming a central circumferential groove in the tire, wherein the central rib includes a circumferential depression centered on the equatorial plane of the mold, and wherein the ratio of the height of the central rib and depth of the circumferential depression is within the claimed range (claim 21). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify any one of McKissick et al., Mills et al. and Brown by providing the mold tread matrix with a well known and conventional central rib in order to produce a well known and conventional circumferential groove in the tire tread for improving wet traction. It would have been further obvious to a skilled artisan to have provided such a central rib with a circumferential depression

for forming a raised rib in the circumferential groove of the tire tread, as disclosed in any one of Takigawa et al., Kinoshita et al., Pfeiffer et al. and Suzuki et al., in order to facilitate removal of pebbles from the circumferential groove, or in order to minimize undesired deformation of the tire carcass due to a relatively wide circumferential groove (as disclosed in Pfeiffer et al.), or in order to absorb excess rubber in the circumferential groove during vulcanization and thereby avoid undesired corrugated deformation of the tire belt layer during vulcanization (as disclosed in Suzuki et al.).

With regard to claims 17 and 18, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify any one of McKissick et al., Mills et al. and Brown by providing the radius of curvature of the convex surface tangent and the radius of curvature of the concave side portions as being within the broadly claimed ranges in order to vulcanize a tire having the desired surface contours; note that a change in size is generally recognized as being within the level of ordinary skill in the art, *In re Rose*, 105 USPQ 237 (CCPA 1955), and the Examiner considers such a change in the radius of curvatures as claimed in the instant claims to be a routine change in size within the level of ordinary skill in the art.

3. Applicant's arguments filed 24 October 2003 have been fully considered but they are not persuasive.

Applicant argues that none of Takigawa et al., Kinoshita et al., Pfeiffer et al. and Suzuki et al. suggest a tire mold having a central rib centered on an equatorial plane of the mold, the central rib including at least one circumferential depression as claimed, since none of Takigawa et al., Kinoshita et al., Pfeiffer et al. and Suzuki et al. disclose that the circumferential projection in the product tire which corresponds to the circumferential depression inherent in the tire molds

of the references is for the purpose of stiffening the tread of the product tire. However, the examiner contends that, to the extent that the function of the product structurally limits the claimed mold apparatus, the central rib including a circumferential depression inherently disclosed in the tire molds of each of Takigawa et al., Kinoshita et al., Pfeiffer et al. and Suzuki et al. would produce a product tire having a central depression including a circumferential protrusion as clearly taught in each of Takigawa et al., Kinoshita et al., Pfeiffer et al. and Suzuki et al., and such a protrusion in the product tire would inherently function, to at least some extent, to stiffen the tread of the product tire. Moreover, Applicant has not shown that the prior art structures lack the functional characteristics of the claimed device or are actually capable of performing such function; see *In re Ludtke*, 169 USPQ 563, and *In re Swinehart*, 169 USPQ 226.

Furthermore, the Examiner contends that it would have been obvious to a skilled artisan to modify the tire molds of any one of McKissick et al., Mills et al. and Brown by providing the features of the tire molds inherently taught in any one of Takigawa et al., Kinoshita et al., Pfeiffer et al. and Suzuki et al. for their known benefits as suggested in each of Takigawa et al., Kinoshita et al., Pfeiffer et al. and Suzuki et al. Note that, if the claimed subject matter would have been obvious from the references, it is immaterial that the references do not state the problem or advantages ascribed thereto by Applicant; *In re Wiseman*, 201 USPQ 658.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-0987.

James Mackey
Primary Examiner
Art Unit 1722

1/12/04

jpm
January 12, 2004